

A Corporate Publication of Santee Cooper

# POWERsource



**PLUS:** EPA Regulations

A Grassroots Effort

Renewable Energy

Old Santee Canal



# from the CEO



The environmental challenges surrounding electrical generation are many and complex. Santee Cooper has prioritized environmental stewardship throughout our history, and I am pleased with the progress we continue to make in this area.

We have closed our four oldest coal-fired generating units, two in Conway and two in Moncks Corner. These units were also our smallest, and they had the fewest emission controls. The units represented about 10 percent of our generating capacity, but in fact they hadn't been run much over the past several years because we dispatch our newest, more efficient and better controlled units first.

Our expansion of the V.C. Summer Nuclear Station is in full swing, with the first of two new units scheduled to be online in late 2017 or early 2018, and the second to follow about a year later. The project is within budget, and while construction is expensive, nuclear power features low fuel costs that will make this generation cost-effective for the long haul. For Santee Cooper, it also improves our fuel diversity, and nuclear has the additional environmental benefit of being virtually emissions-free. Once both units are online, we will be closer to a 30-30-30 split between coal, natural gas and nuclear power, with the balance coming from hydro and renewables.

Speaking of renewables, Santee Cooper has about 130 megawatts online or under contract. This includes nearly 40 MW of biomass generation from two new plants built by EDF Renewable Energy in Allendale and Dorchester counties. We will buy the electricity they generate. These projects also create a new revenue stream for the timber industry in South Carolina.

With the support of Central Electric Power Cooperative, Santee Cooper has also contracted with Liberty Sun Energy to build the state's largest solar farm. Liberty Sun Energy will build the 3-MW solar facility



on property in Colleton County, and Santee Cooper will buy the electricity, working with state electric cooperatives to distribute it to end users. This will be the largest solar installation in the state, and it is scheduled to be operational by year's end.

Read on for more information about these important projects and other initiatives underway. We're working hard to deliver brighter futures across South Carolina.

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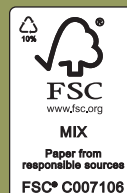
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# Partnerships advance Santee Cooper's role as the state's renewable energy trailblazer

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By Willard Strong

Photography by Jim Huff

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Santee Cooper is the state's leader in generating renewable energy, continuing to blaze a path toward a greener future that began in 2001.

The key to becoming South Carolina's renewable energy standard-bearer is Santee Cooper's commitment to forge critical partnerships: from electric cooperatives to independent power producers to those in higher education. As the year winds down, 2013 has been a watershed year.





**Top left:** The “fuel stacker” at EDF’s Harleyville plant dumps wood chips in a vertical stream that are picked up by a front-end loader.



**Top right:** The plant’s fuel supply of wood chips is largely comprised of hardwood, although some pine is used. The wood chip pile can accommodate approximately 12,000 tons.

**Bottom:** Under construction in late August, this view shows (from left) the plant’s boiler, electrostatic precipitator or ESP, the stack, and the ash silo. The ESP is a component in the facility’s air-emissions control system.





## State's largest solar farm announced, woody biomass online

In September, Santee Cooper, Central Electric Power Cooperative and The Electric Cooperatives of South Carolina announced a partnership to construct a 3-megawatt solar farm in Colleton County.

It will be the state's largest solar-power facility and should be online by year's end.

At the announcement, Santee Cooper president and CEO Lonnie Carter said the solar farm "will set a new bar for solar power in South Carolina."

Liberty Sun Energy will construct and operate the solar farm, and Santee Cooper will buy the power and distribute the energy through Central.

Setting a solar bar is nothing new for Santee Cooper. In October 2006, Santee Cooper became the state's first utility to generate solar power and place it on the grid when the 16-kilowatt Green Power Solar Pavilion at Coastal Carolina University in Conway became operational.

Also in September, EDF began feeding power to the grid from its biomass project near Harleyville in Dorchester County.

The plant is owned by parent firm EDF Renewable Energy and uses timber residue, mainly wood chips, as fuel. Called "woody biomass," it is capable of producing up to 17.8 MW of power. Santee Cooper has agreed to buy its energy and the energy produced from a sister facility in Allendale County.

"This is the first wood-fired plant we've built in North America," says Don Butynski, EDF's senior project leader. "We can consume 650 tons a day, and a 50-mile radius of the plant is the optimum distance for cost-effective procurement. There's a lot of wood out there."

Elizabeth Kress, a Santee Cooper engineer who works on renewable energy projects, says the Dorchester plant is good for the Palmetto State's forest industry.

"They're using residues, not clean chips," Kress says, "so they're not stepping on the toes of the paper mills. It's also a closed-loop, carbon cycle process at work here, and there are zero-net carbon emissions in this process. This project is very exciting."

The \$80 million Dorchester plant created 250 construction jobs and will result in 18 full-

**Opposite, bottom:** The high boiler structure dwarfs the steam turbine area that in late August during the Harleyville plant's construction was shielded from the elements by a black cover. From left are the plant's cooling tower, boiler and operations building.





“We have more than 130 MW of renewable energy online or under contact.”

—Lonnie Carter



time employees. Timber producers that supply the wood product and the state's trucking industry that brings the product to the plant will also reap long-term economic benefits.

Butynski and Bill Smith, the plant's on-site general manager, have high praise for Santee Cooper and its employees who helped get the facility online.

“EDF says Santee Cooper is the best utility we've ever worked with, and I agree,” says Butynski. “You guys do a great job.”

**Top:** Don Butynski is EDF's senior project leader and he oversaw the simultaneous construction of the Dorchester County plant and its companion facility in Allendale County. EDF has considerable experience in its field and the firm has 954 employees working in North America.

**Middle:** The truck tipper empties wood chips that come from timber harvested in South Carolina forests. The Harleyville plant is producing renewable energy from a renewable resource: trees.







**Top:** The 16-kW Coastal Carolina University Green Power Solar Pavilions, which entered commercial operation in July 2006, represented the first solar-produced power in South Carolina to be placed on an electric grid. The Conway site was dedicated in October of that year.

**Bottom left:** Combusting wood products requires a fire-suppression system that can be activated in the unlikely event of an emergency at the Harleyville facility.

The 3-MW Horry Landfill Generating Station near Conway, which uses methane gas as fuel, began operating in September 2001 and represented the first time in South Carolina history the electric grid received commercially produced renewable energy.





## Santee Cooper's renewable energy past and future

On Sept. 4, 2001, Santee Cooper became the first utility in South Carolina to generate electricity from renewable energy, place that renewable energy on the grid, and offer it to customers through the voluntary Green Power program. The source of that power was the Horry Landfill Generating Station, which today produces 3 MW.

Working with waste firms and the co-ops, there are six Santee Cooper landfill-gas plants statewide, capable of generating 28 MW. They're fueled by methane gas from decaying garbage that otherwise would enter the atmosphere as a harmful greenhouse gas.

Santee Cooper also purchases 38 MW of woody biomass from Domtar and an additional 17.8 MW each from the EDF Renewable Energy plants in Allendale and Dorchester counties.

"We have more than 130 MW of renewable energy online or under contact," Carter says. "It's all made from 'homegrown' resources." Landfill gas, solar, biomass and wind power are all on the table and applied by Santee Cooper to varying degrees.

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**This side view shows the Harleyville plant's cooling tower, boiler and operations building.**



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**So what's the future? PowerSource interviewed Stephen Spivey, Santee Cooper's manager of renewable energy for answers.**

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**PS: How would you describe Santee Cooper's overall approach and philosophy to renewable energy?**

We are looking at all of the resources available in South Carolina to see what is practical for development and what benefits a resource may provide our customers. By having some experience and knowledge in these varied resources, we will help Santee Cooper prepare for what may come in the future. We have several biomass projects and are currently working on a solar project that will greatly increase our solar experience. We are also looking at resources, such as offshore wind, to see what those benefits and challenges are. Currently the cost of offshore wind doesn't provide a good fit, but we want to be prepared and stay abreast as technology and economics around this resource develop.

Green Power, together with our Green Tags program, allows anyone in South Carolina an opportunity to purchase certified renewable energy for \$3 per 100-kW block. These voluntary programs allow customers to make the decision to support renewable energy, since the proceeds go to support additional renewable-energy projects.

**PS: Woody biomass is Santee Cooper's newest renewable energy frontier. How did it get on Santee Cooper's radar screen?**

Domtar, one of Marlboro Electric Cooperative's customers, had been considering the possibility of adding a generator to their process. When our board of directors stepped up our renewable energy efforts, it created the opportunity for

us to move forward together. During this same general timeframe, many developers started approaching us about potential projects, and we worked through many proposals until we were able to find the right fit for our customers.

**PS: GenEarth, a Sumter, South Carolina-based firm, began generating 1.6 MW of Green Power at its facility near the Berkeley County landfill back in April. This "homegrown" investment must be encouraging.**

It's a great project for our area because of the varied benefits that come with it. First, we are able to purchase the renewable energy, but other benefits abound. The feedstock for the digestion process at GenEarth is a waste stream that would have to be disposed of in some way, such as landfilling. That waste can also cause issues for the landfill operator, or Berkeley County in this instance. This process also has a byproduct that can be used as an organic soil amendment, so you can see there are many benefits beyond just our electric supply from this project.

**PS: Santee Cooper has 36 kW of solar installed at Coastal Carolina University and the Technical College of the Lowcountry. The Solar Schools program has installed 2-kW systems at 20 public schools statewide. With the announcement that we're a part of the state's largest solar project, does this mean solar power has a commercially viable future?**

The answer to this question a few years ago was "no," but with the improving pricing of solar equipment and installation the answer may be changing. If you can



overcome the initial cost of installing solar then it may make economic and environmental sense. However, this must be weighed against the added cost of filling in the gaps that solar can create in the power supply. Since solar is a variable energy source, the utility is called on to fill in the gaps, and this will require us to adjust our dispatch process so the reliable electric service is not diminished for any of our customers.

**PS: How does Santee Cooper view its future in wind power, beyond the 2-kW wind turbine in North Myrtle Beach that has been operating since December 2010?**

The 2-kW turbine provides a learning opportunity, and as time permits we continue to look for other small-scale educational opportunities. For large-scale utility wind projects, its viability can change as technology and regulations change. Currently, land-based wind is not attractive for utility-scale power production in South Carolina. However, there appears to be a larger wind resource off the coast. With current technology and economics, this resource is not yet cost effective for our customers, but we continue to look at this resource to see if and how it might fit into our portfolio in the future.

**PS: What is the most misunderstood aspect of renewable energy?**

Most people tend to think of renewable energy as less expensive and at times free, but they don't realize how complicated the power delivery system can be. Our country's electric grid was not designed in a way for energy to flow in several directions. Everyone needs to remember that if renewable energy were easy and economical, there would be more of it in use. **PS**



**Above:** The GenEarth facility near the Berkeley County Landfill has a generating capability of 1.6 megawatts.

Heavy equipment, such as this front-end loader handling wood chips, is an integral part of the Harleyville plant's operation.

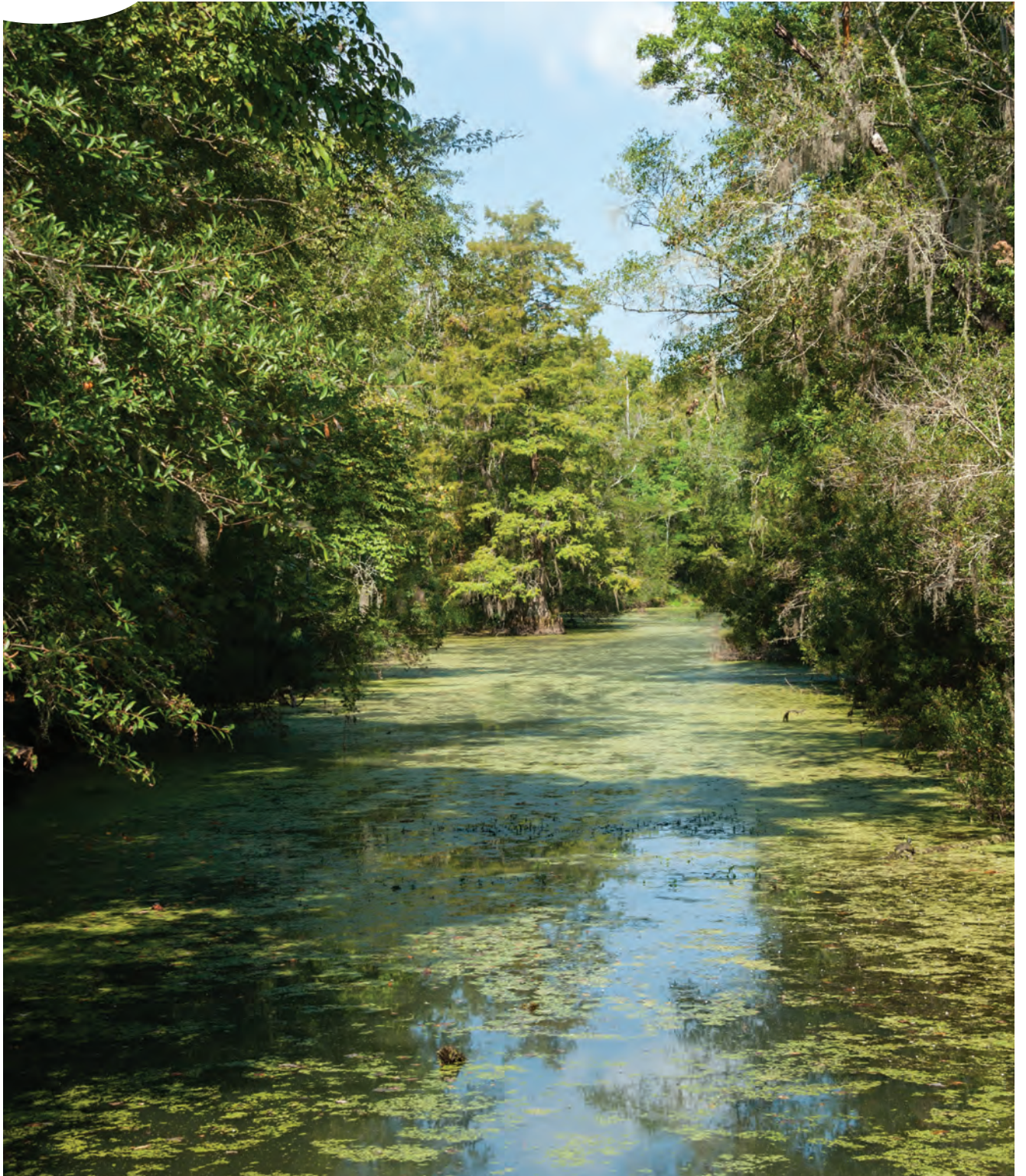


**Below:** In the foreground is the conveyor system that feeds wood chips to the boiler at the Harleyville plant.





# *T*raveling down the old **SANTEE CANAL**





Travel is far from overly arduous these days. Most of us have the opportunity to travel by train, plane, automobile or boat, all relatively easily accessible and within reach. With all these high-speed options at our fingertips, it's hard to imagine how much of a burden it was in the 18th and 19th centuries to travel just from mid-South Carolina to the coast.

In the days before manufacturing plants and way before overnight deliveries, it was crucial for farmers to get their agricultural goods to the Charleston Harbor for export. Pulling indigo, cotton, and grain by wagon and mule on land, traversing swamps and rivers in handmade boats, and daring the Atlantic coast's demanding and treacherous waters in small vessels was grueling.

Many exporters used the Santee River and its tributaries to transport their goods. If they wanted to make it to the Charleston Harbor, they were forced to travel through the swampy and shallow waters of the Santee River delta and bay to get to the coast before braving the 50 miles of open sea. Farmers not only faced losing their crops on the open sea, they also faced the possibility of losing their lives.

*words:*

**NICOLE A. AIELLO**

*photography:*

**JIM HUFF**



This is where the genius of the Santee Canal fits in perfectly with the times. Once it was built, the Santee Canal remedied those hardships and dangers by connecting the Santee River to the Cooper River, which flows to the Charleston Harbor.

The canal was chartered in 1786, just a decade after Americans declared their independence, and construction began in 1793. There were some notable people associated with the charter and building of the canal, including Gen. William Moultrie and Gen. George Washington. When Moultrie wrote to his longtime friend about the canal, Washington replied that the canal project was “a laudable and important design — it gives me great pleasure to find a spirit of inland navigation prevailing so generously. No country is more capable of improvement in the ways than our own.”

**The canal's southern mile can be viewed from walking trails, at viewing areas or by canoe at Old Santee Canal Park in Moncks Corner.**

**Cypress trees spread their branches over parts of what was once the Santee Canal. The shareholders of the Santee Canal requested to have the charter revoked in 1850 after 50 years of service.**



**It took seven years for workers, who relied on picks and shovels, to construct the 22-mile canal.**

**Brad Sale, environmental education coordinator at Old Santee Canal Park, describes how canal engineers used the natural resources available to them to connect the southern mile of the Santee Canal to the Cooper River.**

There's no doubt our country and its people were certainly capable. Imagine, however, the hardships of building the canal and its 11 locks, one being a tidal lock. More than 700 workers, many of whom were slaves, dug the 22-mile canal with picks and shovels while battling natural elements of weather, flora and fauna — like alligators and bears. Once completed, the canal was 5.5 feet deep, 30 feet wide at the top and 20 feet wide at the bottom.

The engineering involved was a feat within itself, and engineers researched the best routes possible. As Brad Sale, the environmental education coordinator with Old Santee Canal Park, explained, the canal route chosen was designed to take advantage of the natural resources already available.


“The route blended the manmade portion of the canal with what naturally existed, in this case swamps and Biggin Creek,” Sale said, speaking specifically about the last Southern mile of the canal that connects it to the Cooper River. “They tried to make it as easy as possible to travel to the Cooper River.”

Seven years and countless man-hours later, the Santee Canal opened for operation. The canal's first 16 years of operation went relatively smoothly until a severe drought from 1817 to 1819 halted canal use. In its busiest year in 1830, more than 700 boats with approximately 70,000 bales of cotton traversed the canal.

By the 1840s, however, canal traffic was stunted by the rise in railroad construction.







“THE ROUTE BLENDED THE MANMADE  
PORTION OF THE CANAL WITH WHAT  
NATURALLY EXISTED, IN THIS CASE  
SWAMPS AND BIGGIN CREEK”



Mary Bell describes the excitement she felt when she got the chance to see one of the locks firsthand.

In 1850, the shareholders requested to have their charter revoked, and the General Assembly acquiesced.

A majority of the canal now lies quietly and peacefully beneath the waters of Lake

Moultrie, which was created along with Lake Marion in the 1940s to help Santee Cooper power rural South Carolina. Mary Bell, who has worked at Old Santee Canal Park since its opening in 1989, is passionate about the history of the canal and about its current condition.

Bell has seen weathered lock No. 3, one of three locks that still stand in the sunshine.

“Understandably, it has some wear and tear from the weather, but it was exciting to be able to see the handmade bricks and quoin stones firsthand,” Bell said.

Not everyone will get the chance Bell got, however, since the above-ground locks are located on private property. During the drought of 2007 and 2008, however, lake levels were low enough that at least one lock rose from its watery resting place. The upper bricks of the lock could be seen from the shore, rising at least five feet out of the low waters.

“It was really exciting to go to the underwater lock when the water was so low. It was neat to see the lock and its entrance. And the quoin stones were still in place,” Bell said. “It was surprisingly well preserved, even better than the ones I had seen on land.”

In addition to the lock’s appearance, there were places on Lake Moultrie that were so low people could not only view the lock, but also walk parts of the canal’s trail.



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As a result of a drought in 2007-08, remnants from one of the original locks emerged from the waters of Lake Moultrie.

At Old Santee Canal Park, visitors can view the natural surroundings that were part of the last southern mile connecting the Santee River to the Cooper River.

“You could plainly see the canal bed and walk where, in earlier times and earlier years, barges were going up and down the canal, allowing farmers to get merchandise safely to Charleston. During the drought, we were able to walk down what was once a modern marvel,” Bell said.

And a modern marvel it was. As Bell aptly articulates, “It was the superhighway of the past and a significant historical achievement.” **PS**







By Kevin F. Langston

Graphics by Sarah Nell Blackwell





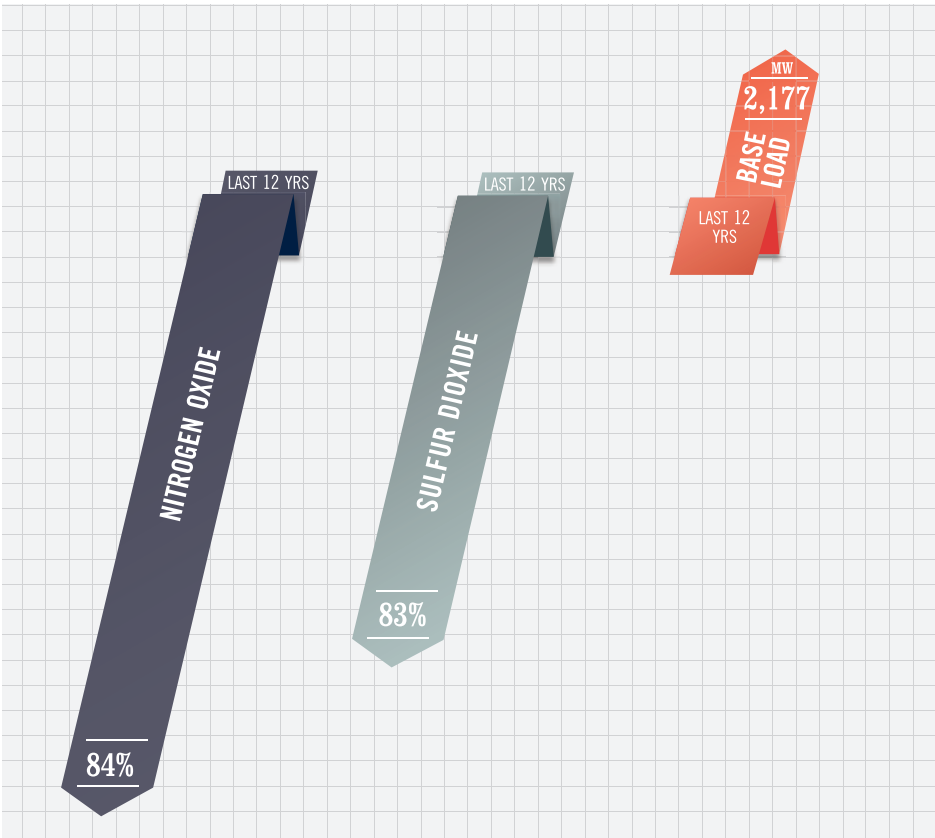
In 2009, the Environmental Protection Agency declared greenhouse gas pollution a threat to Americans’ health and welfare. This declaration became the basis for EPA to pursue the regulation of these emissions from the power sector.

“That was a game changer,” says Jay Hudson. “That declaration will have innumerable ramifications for the power industry and its customers.”

Hudson is Santee Cooper’s manager of environmental management, and it’s his department’s responsibility to offer guidance and assistance to ensure all state and federal environmental regulations are met.

“We have a responsibility to the environment and to the regulations that govern our industry,” Hudson says. “We also have a responsibility to our customers and to keeping our costs low. Rarely do these interests intersect, but it’s our job to find that balance.”

Since 2000, Santee Cooper has reduced emissions of sulfur dioxide by 83 percent and nitrogen oxide by 84 percent. Since 2000, Santee Cooper has increased its base load capacity by 2,177 MW while also reducing emissions of mercury and other particulate matter.





EPA issued its latest CO<sub>2</sub> guidelines for new power plants Sept. 20 and is expected to release guidelines for existing power plants by June 1, 2014.

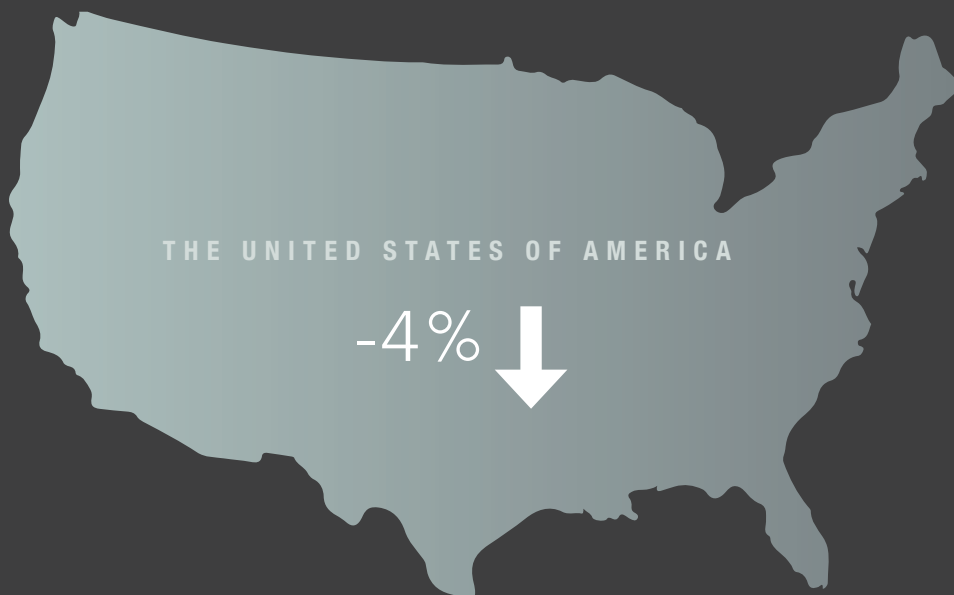
“EPA has proposed an emission standard of 1,000 pounds of CO<sub>2</sub> per megawatt-hour for new power plants, which is impossible for coal-fired units to achieve without the use of carbon-capture technology,” Hudson says.

He says the problem with carbon-capture technology is it remains an expensive and unproven process. He also points to two other clean-coal projects developed by Duke Energy and Southern Co. that have encountered several cost overruns and construction delays.

“Here you have two of the nation’s largest electric utilities struggling with these new technologies. I doubt it invokes much confidence for the rest of the utility sector,” Hudson says. “Why sink all of that money into an experimental process, when natural gas has become a much more attractive option for utilities lucky enough to be near a gas line?”

Until the new carbon guidelines for existing plants are finalized, Hudson says it’s difficult to know how they will affect Santee Cooper’s operations. “But if you look at the data, our carbon emissions have been in decline the past five years,” which Hudson attributes largely to the economic downturn and historically low natural gas prices.

“In the past five years, the U.S. has seen the largest net change in carbon emissions among industrialized nations,” Hudson says. “Our 2011 emissions were 63 percent less than China’s.”



Percentage change in CO<sub>2</sub> emissions 2002-2011

2008

2010

'09

Total emissions released by Santee Cooper have decreased over the last five years.

Measured emissions include SO<sub>2</sub>, CO<sub>2</sub>, NO<sub>x</sub> and mercury.

2011

45.8%  
OVERALL

2012





With countries like China, India and Russia releasing more CO<sub>2</sub> emissions than ever, Hudson wonders how effective carbon regulations would ultimately be.

“If we’ve managed to reduce our emissions without EPA’s involvement, it’s valid to question whether we need binding regulations,” Hudson says.

CO<sub>2</sub> standards might grab the most headlines, but Hudson says there are a handful of other pending EPA regulations that could also have a tremendous effect on costs.

The Mercury and Air Toxics Standards are scheduled for implementation by April 2015 and call for the addition of emissions-reduction equipment at eight coal-fired units that represent 3,480 MW of Santee Cooper’s electric capacity.

“This rule was one of the factors behind the decision to shut down units at the Grainger and Jefferies generating stations. Retrofitting those units was going to be too

cost prohibitive, so we retired their 468 MW of capacity,” says Julie Metts, supervisor of air quality assessment. “The remaining coal-fired units are already equipped to remove an estimated 90 percent of mercury emissions, and the new standards require additional measures at a significant cost for a fraction of a percent reduction in global mercury emissions.”

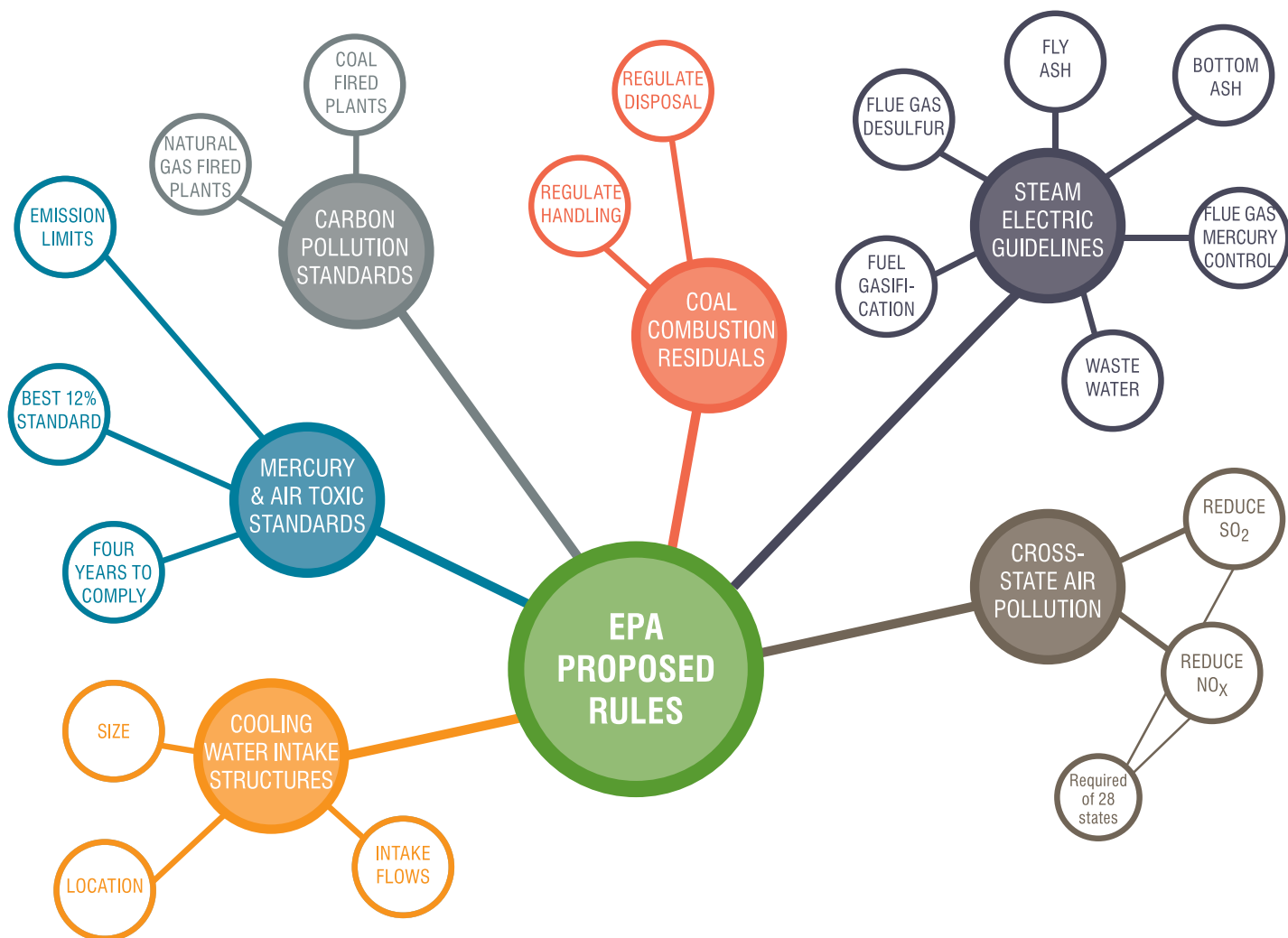
EPA’s proposed Coal Combustion Residuals rule seeks to regulate the storage and disposal of coal ash at power plants. According to Thomas Edens, supervisor of combustion byproducts utilization, one scenario seeks to erroneously classify these combustion byproducts as a hazardous waste.

“We’ve got a successful combustion byproduct recycling program involving wallboard and cement manufacturers,



Percentage change in CO<sub>2</sub> emissions 2002-2011





This web graphic illustrates the scope of EPA's planned regulations.

agriculture and other creative markets,” Edens says. “That program goes away if EPA arbitrarily declares these materials as hazardous waste, and we’d have to landfill annually about 1 million pounds of a product that has benefitted many South Carolina industries and kept jobs in our state.”

One of the newer proposals from EPA would revise the Steam Electric Power Generating Effluent Guidelines that govern wastewater discharges from power plants. Hudson says these rules would require the construction of wastewater treatment plants at Santee Cooper’s Cross and Winyah generating stations. In addition to the cost of constructing these facilities, Hudson is concerned with how they would affect the

plants’ generating efficiency. The earliest implementation of this rule is 2017.

EPA’s Cooling Water Intake Structures proposal would require Santee Cooper to make modifications of its cooling intake structures at the Cross and Winyah stations.

EPA’s proposed Cross-State Air Pollution Rule would require states to reduce power-plant emissions from coal and natural-gas units that contribute to ozone and other fine-particle pollution in other states. Hudson says Santee Cooper is already well-positioned to meet those proposed requirements.

“Until these rules become final, we’re dealing with a moving target, or several




# SANTEE COOPER FUEL MIX

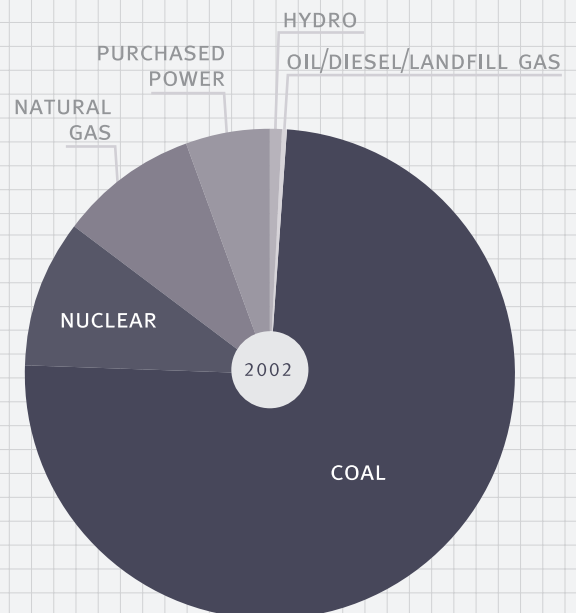
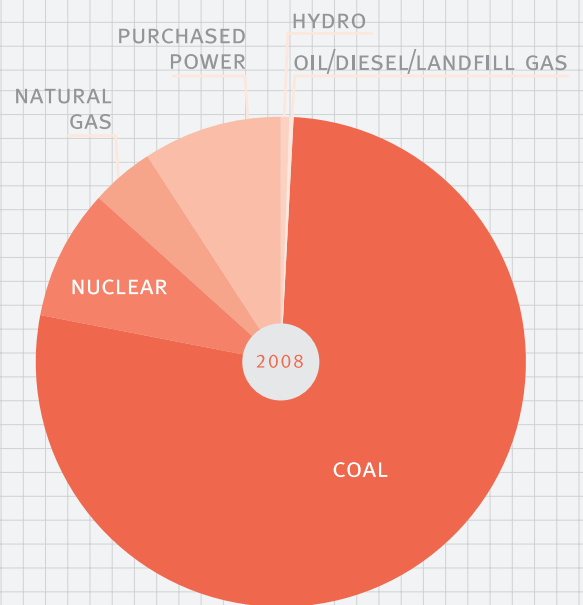
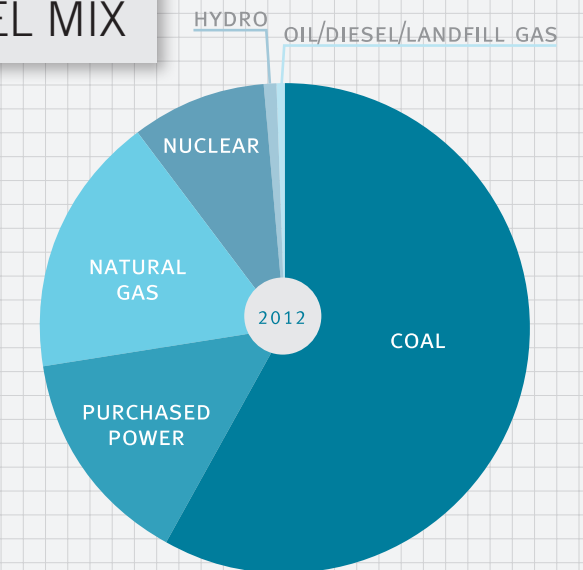
moving targets,” says Brian Holmes, director of Santee Cooper’s environmental management system.

In the meantime, Hudson says Santee Cooper is involved with several trade groups that are actively engaged in the regulatory process. “Groups like the American Public Power Association and the Large Public Power Council are representing our interests and advocating our concerns,” he says.

Santee Cooper is also pursuing the expansion of the V.C. Summer Nuclear Station with South Carolina Electric & Gas Co. “That project will help us attain a more favorable degree of fuel diversity and reduce our overall system emissions,” Hudson says. “Nuclear power is carbon-neutral, and today’s regulatory environment basically leaves it as the only viable source of baseload generation for a utility like ours.”

As the regulatory outlook comes into focus over the next several months, Hudson says his department will continue to keep Santee Cooper’s customers at the forefront of their decisions and actions.

“Our mandate is to improve the quality of life for all South Carolinians. Preserving our environment has always been a part of that, and so has keeping our costs low,” he says. “The electric industry is experiencing some of the most dramatic changes it’s ever seen, but we’ve been meeting that mandate for over 75 years and will continue to meet it.” 







By Susan Mungo

# A Grassroots Effort

Photography by Jim Huff



*At a time when we've become a global village of consumers, there is also a greater demand for locally sourced food. Of course, this suits South Carolina's farms just fine.*

There are as many as 25,000 farms in South Carolina, according to the state's Budget and Control Board, with an average acreage of 161. The South Carolina Department of Agriculture says the state ranks near the top nationally in several categories of produce production with peaches, collards, kale, turnips, mustard, tomatoes and watermelon leading the way. Produce alone is an industry with an annual impact of more than \$150 million.

No one questions the work ethic of a farmer. Their reputation as earlier risers and long laborers is a testament to the American work ethic, while their ability to adapt with changing trends and technologies is a credit to American ingenuity.

South Carolina's farms have evolved their approach to agriculture by offering their communities far more than just fresh fruits and vegetables. In the process, they're ensuring the survival of one of the nation's oldest professions.



**A vegetable plate and a cup of sweet tea await you at the Stono Café on Johns Island.**



**Left:** Scott Thompson stands with a 1938 model John Deere tractor under the covered shed of the General Store at Thompson Farm & Nursery.

Thompson oversees much of the day-to-day operations on the farm. Those duties include everything from feeding the animals and planting crops, to organizing events at Bucksville Hall.

Thompson has four children and plans to keep the farm and all that happens on the farm a family tradition.

**Opposite page (clockwise from bottom left):**

Scarecrows welcome the young and old alike to the Thompson farm year-round.

An earlier generation of Thompsons work the farm. The gentleman standing in a white shirt and khaki pants is Mr. Fred Thompson, Sid Thompson's father. The farmhouse in the background is still standing and is the place Sid Thompson calls home.

Split hooved animals, like this bull, don't have upper teeth, so children are able to feed them without being bitten — no matter how scary they look.

The goats are eager to receive their share of feed.

## A family tradition

At Thompson Farm & Nursery, four generations of Thompsons have been tending the land since 1845. The family farm is located in the small Horry County community of Bucksville and sits on about 200 acres. Today, Sid Thompson and his children — Rich, Scott and Kristin — work to keep the farm thriving.

Strawberries are a staple every April and May, and they give way to collards, cabbage, lettuce, broccoli, cauliflower and turnips when the weather starts to cool. At their general store, customers can stop in and buy enough for supper or enough to feed a crowd. The Thompsons also grow soybeans, which are sold in bulk for local feed and grain.

The farm's soil isn't the only harvest resource for the Thompson family. They use ponds and greenhouses to raise everything from flowers to tilapia, and there's even talk of a few record-size bullfrogs.

In all areas, the Thompsons place a premium on using sustainable practices.

Recently, Thompson Farm & Nursery has also started harvesting young minds through its educational outreach. Classes cover topics from farming history to livestock lifestyles, and the goal is to preserve the family-farm tradition in South Carolina through the use of traditional means and unconventional methods.

For the Thompsons, some of those unconventional methods include a variety of tours that teach children things like where some of their favorite pizza toppings come from. The farm also offers various nature programs and a supervised animal feeding area that includes goats, cows and buffalo.











“Split-hoofed animals have no upper teeth, so while the children may feel a little pressure, they cannot be bitten by the animals they feed here,” says Scott Thompson, who oversees the farm’s day-to-day operations.

The way the Thompsons see it, Thompson Farm & Nursery is a family affair, and they want the community to feel like a part of that family.

Come October, the farm opens to the public every weekend, where people can enjoy South Carolina’s largest corn maze, hayrides, tours through the pumpkin patch and more. The farm also offers special events for the Christmas and Easter holidays.

One of the farm’s most popular additions has been Bucksville Hall, a 6,000 square-foot shed that has become a venue for weddings and other events.

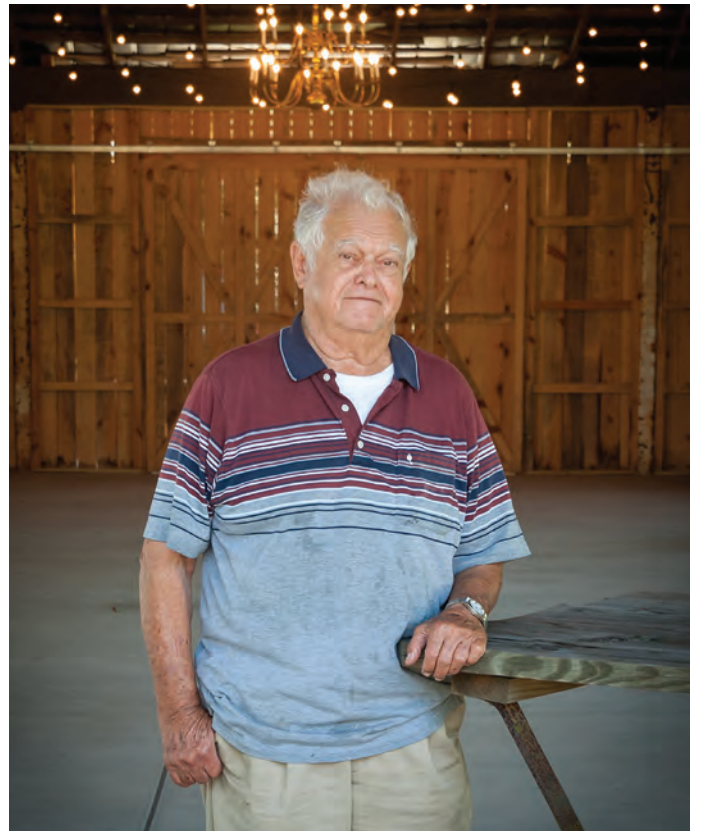
Sid Thompson says sons Rick and Scott came up with the idea and handled the remodeling.

“We had no idea what a great addition it would be,” Thompson says. In the last year the farm has booked more than 44 events at Bucksville Hall and can even provide catering services depending on the season.



**Above:** With names like Vanilla the cow and Magenta the pig, it is easy to see why the animal farm is so kid-friendly.

Sid Thompson stands just inside the entrance to Bucksville Hall, which his sons renovated for special events.



The Thompsons have been tilling the land for more than 150 years, and their ability to diversify their business will likely keep them working it for 150 more.







**Opposite:** Fairytale and Kermit eggplant make a colorful display. This is just a small sample of the many items available to the public on the Ambrose Farm.

Pete Ambrose, who owns the Ambrose Family Farm, knew he wanted to be a farmer since he was in high school. Here he shows off a portion of his bounty: green bell pepper, icicle radishes, fairytale (purple) and Kermit (green) eggplant and red jalapeno peppers.



## Voted “Most Likely to Be a Farmer”

Meanwhile, in South Carolina’s Lowcountry, another family has been working the land to cultivate a community.

Nestled behind the oaks and creeks in the countryside of Wadmalaw Island is the 135-acre Ambrose Family Farm at Selkirk Plantation, which is served by Berkeley Electric Cooperative. Here you will find a quiet-spoken gentleman known in these parts as Farmer Pete.

Pete Ambrose’s background is actually in shrimping, where he first began to appreciate locally sourced food. Over time, Ambrose decided to pursue a passion he’d held since high school.

“I was the only kid in high school with a garden,” he says.

He began in 1976 with just tomatoes, but the Ambrose Family Farm now grows more than 70 varieties of produce as well as 120 olive trees, which Ambrose believes are the first to be grown in South Carolina in more than 200 years.

Ambrose is a farmer who cares for the land he works. He plants grass to harvest for compost, practices crop rotation, and uses no chemical fertilizers. It’s his goal to continue sustainable agricultural methods until the farm can be certified organic.









<u>Small</u>	<u>MEDIUM</u>	<u>LARGE</u>	<u>XL</u>
3 bell Pepper	6 bell Pepper	9 bell peppers	12 bell peppers
.25 MALABAR	.50 MALABAR	.75 MALABAR	1# MALABAR
.25 OKRA	.50 OKRA	.75 OKRA	1# OKRA
4 onions	6 onions	8 onions	10 onions
6 hot pepper (mix)	12 hot pepper (mix)	18 hot pepper (mix)	24 hot peppers (mix)
1 pumpkin leaves	2 pumpkin leaves	3 pumpkin leaves	4 pumpkin leaves
.25 SALAD MIX	.50 SALAD MIX	.75 SALAD MIX	1# SALAD MIX
1 QT (2) SQUASH Blossoms	1 QT (2) SQUASH Blossoms	1 QT (2) SQUASH Blossoms	1 QT (2) SQUASH Blossoms
1 MANDJO Shiso	1 MANDJO Shiso	2 MANDJO Shiso	2 MANDJO Shiso
1 RADISH	1 RADISH	2 RADISH	2 RADISH

THURSDAY	9/5/13
<u>Small</u>	<u>MEDIUM</u>
18	11
<u>LG</u>	<u>XL</u>
0	1

The chalk board reminds the produce workers of what goes into each size CSA for that week.

Tasty bell peppers are often found at the Stono Market and in the CSA's weekly bundle.

**Opposite:** Spicy red jalapeno peppers, pumpkins leaves and carrots are items Ambrose Farm often sells to local restaurants in the Charleston area.

The Ambrose Family Farm participates in community-supported agriculture (CSA), a locally-based model for agriculture and food distribution where members subscribe to a share of the harvest at the start of each growing season. CSA farming has grown in popularity since the concept was introduced in the 1980s, and Ambrose Family Farm has between 200 and 1,200 members, depending on the season. The produce is harvested daily and distributed to locations throughout the Lowcountry for members to collect.

Beyond its CSA affiliation, the Ambrose Family Farm also operates the Stono Market. In 1989, Farmer Pete and wife, Babs, noticed an old, unused building that had once been a rail station. In more recent times farmers had used it for packhouses, but the Ambroses saw more potential and opened the Stono Market & Tomato Shed Café.

The minute you step into Stono Market you can see it's a labor of love. Customers can buy fresh produce harvested from Ambrose Family Farm or from other areas when a particular crop is out of season here. They sell shrimp, pimento cheese, jams, jellies, and a variety of meats and eggs from local sources. They also prepare take-and-bake meals, and their bakery specializes in sweet breads and pies.

Open since 1991, the Tomato Shed Café is run six days a week and offers everything from casseroles to their famous crab cakes and tomato pie.

"A few items on the menu change daily based on what vegetables we have left over from the farm," says Babs Ambrose.

Whether it's through the Stono Market or its CSA affiliation, the Ambrose Family Farm feeds the Lowcountry and is part of a proud tradition of farms like Thompson Farm & Nursery that rely on time-honored techniques and out-of-the-box strategies to feed South Carolina communities. [PS](#)

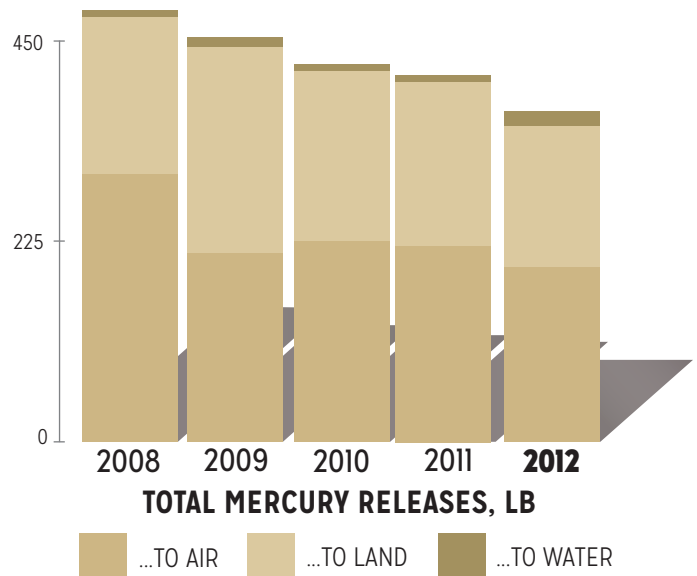
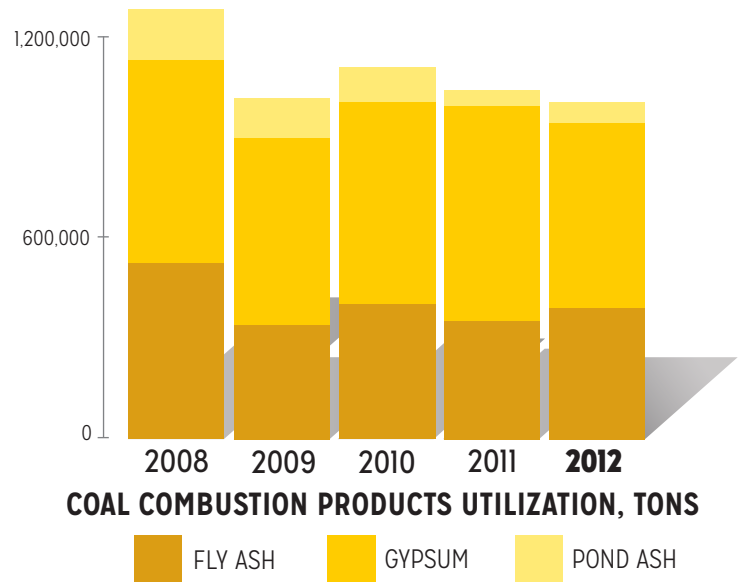
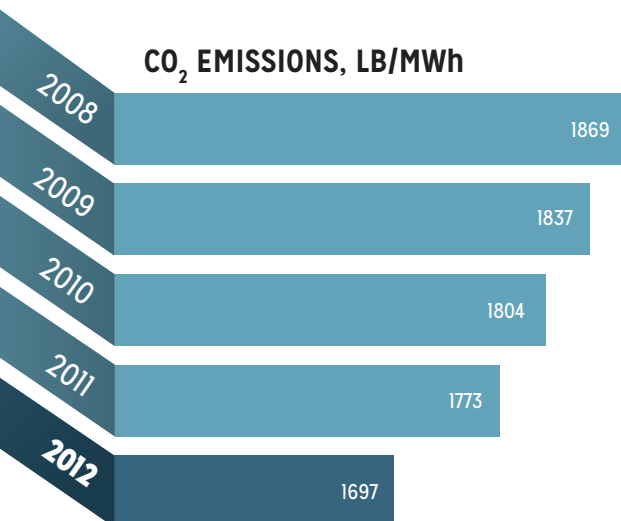
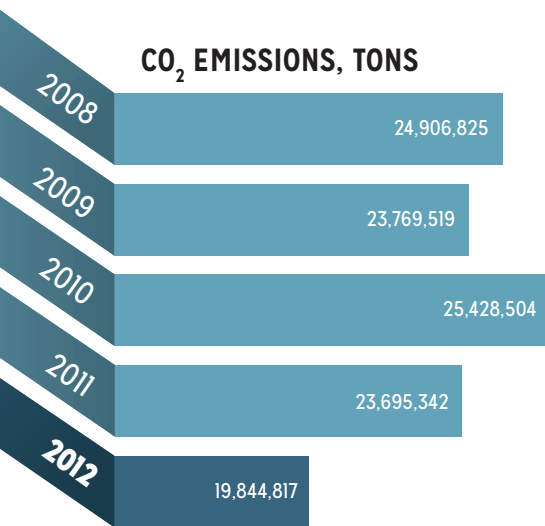
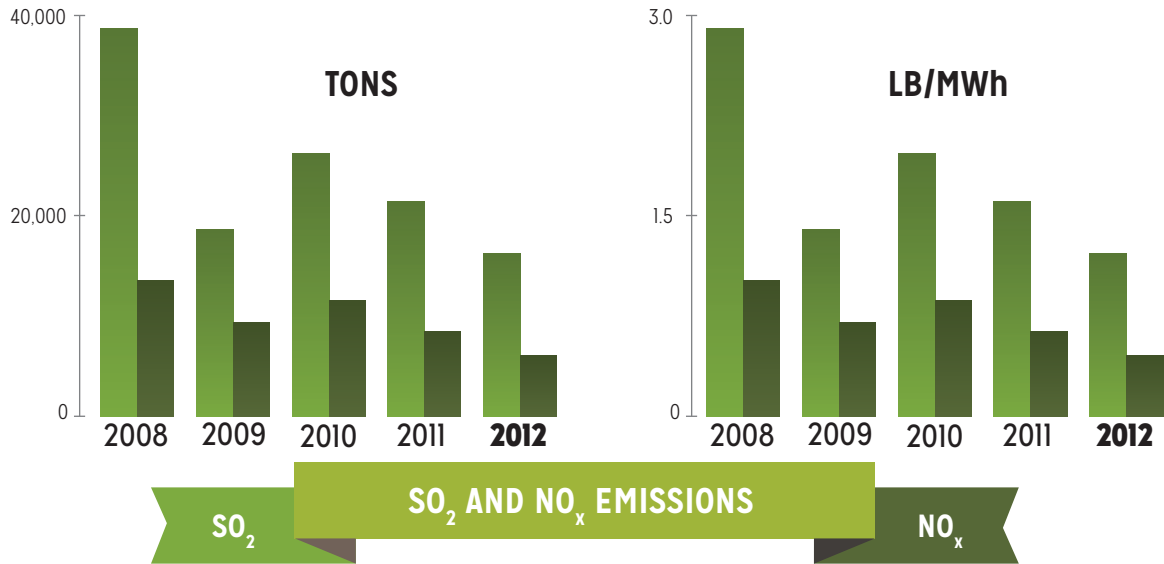




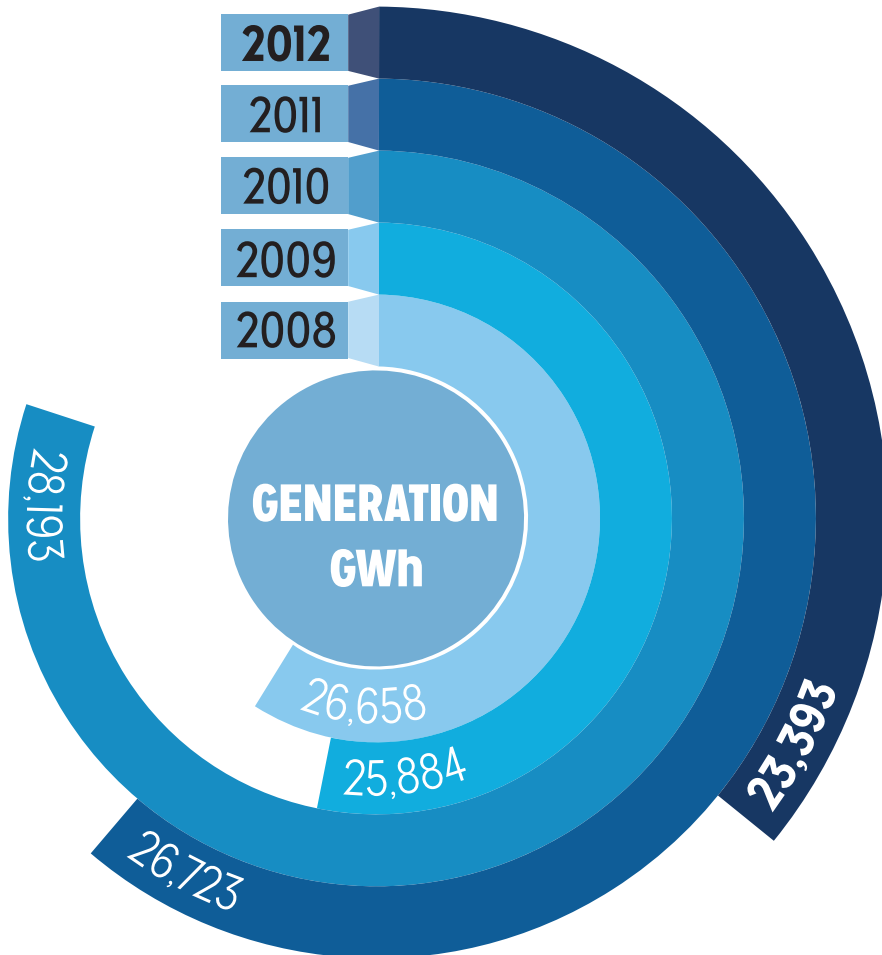
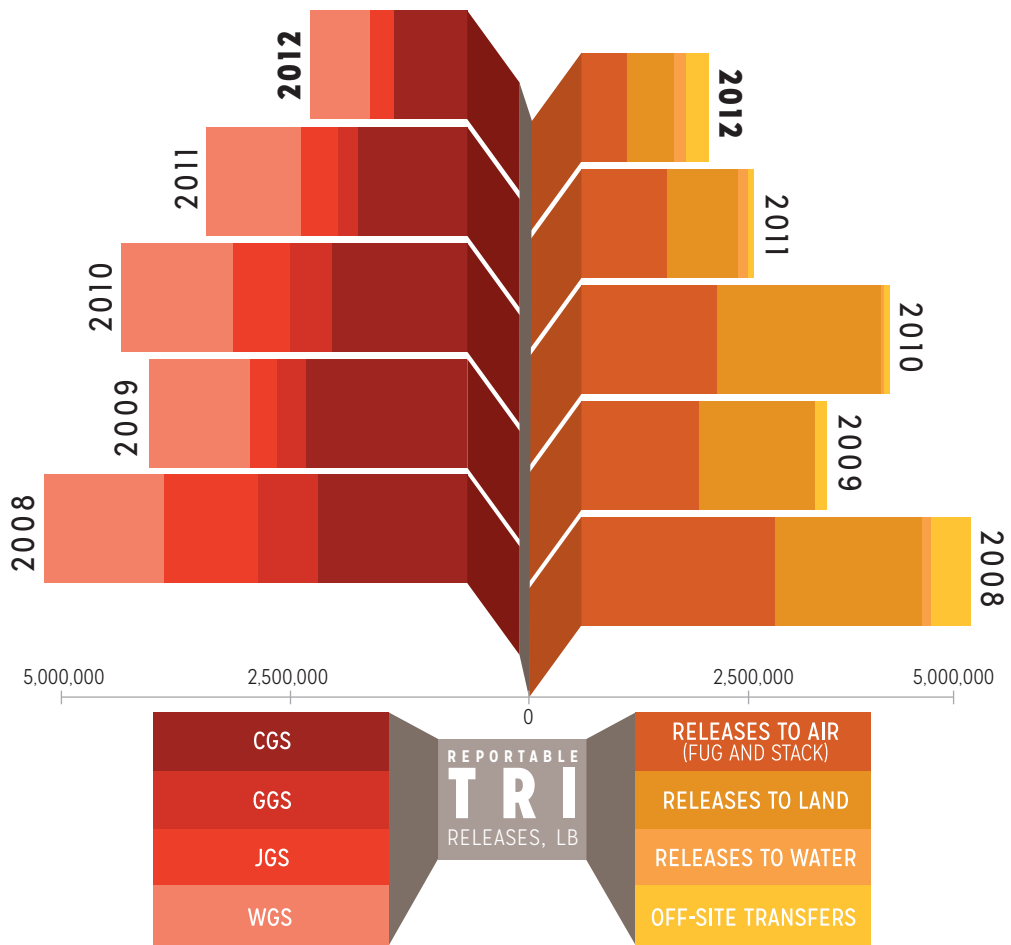




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